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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,955	03/31/2006	Bernd Rehm	3652-50	3076

23117 7590 07/02/2007
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
MEAH, MOHAMMAD Y	

ART UNIT	PAPER NUMBER
1652	

MAIL DATE	DELIVERY MODE
07/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,955	REHM, BERND	
	Examiner	Art Unit	
	Mohammad Meah	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *30-99* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *30-99* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The claims 30-99 are pending among which claims 43-58 were withdrawn

The previous restriction requirement is withdrawn because of restriction was done improperly by not restricting the claims based on types of product produced. Further restriction is as follows:

Restriction

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Based on these various genes, proteins and type of products produce, claims are grouped in following groups of inventions:

group 1 comprise method of producing biodegradable polymer using microorganism transformed with genes encoding PhaP and thiolase ;

group 2 claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaP gene and gene encoding ketoacyl reductase

group 3 claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaP gene and gene polymer synthase.

group 4 comprise method of producing biodegradable polymer using microorganism transformed with genes encoding PhaF and thiolase.

group 5 claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaF gene and gene encoding ketoacyl reductase.

group 6 claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaF gene and gene encoding polymer synthase.

groups 7-9 comprise method of producing biodegradable polymer using microorganism transformed with genes encoding PhaP and thiolase and one additional gene selected from gene encoding polymer depolymerase, polymer deregulase or polymer size controlling protein, wherein group 7 comprise genes of encoding PhaP and thiolase and one additional gene encoding polymer

depolymerase and group 8 comprise genes of encoding PhaP and thiolase and one additional gene encoding polymer and group 9 comprise genes of encoding PhaP and thiolase and one additional gene encoding polymer size controlling protein .

groups 10-12, claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaP gene and gene encoding ketoacyl reductase and one additional gene selected from gene encoding polymer depolymerase, polymer deregulase or polymer size controlling protein . wherein group 10 comprise genes of encoding PhaP and ketoacyl reductase. and one additional gene encoding polymer depolymerase and so on (see groups 7-9)

groups 13-15, claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaP gene and gene encoding polymer synthase and one additional gene selected from gene encoding polymer depolymerase, polymer deregulase or polymer size controlling protein wherein group 13 comprise genes of encoding PhaP polymer synthase and one additional gene encoding polymer depolymerase and so on (see groups 7-9).

groups 16-18 comprise method of producing biodegradable polymer using microorganism transformed with genes encoding PhaF and thiolase and one additional gene selected from gene encoding polymer depolymerase, polymer deregulase or polymer size controlling protein, wherein group 16 comprise

genes of encoding PhaF and thiolase and one additional gene encoding polymer and so on (see groups 7-9).

groups 19-21, claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaF gene and gene encoding ketoacyl reductase and one additional gene selected from gene encoding polymer depolymerase, polymer deregulase or polymer size controlling protein wherein group 10 comprise genes of encoding PhaF and ketoacyl reductase. and one additional gene encoding polymer depolymerase and so on (see groups 7-9)

groups 22-24, claims 30-42, drawn to a method of producing biodegradable polymer using microorganism transformed with PhaF gene and gene encoding polymer synthase and one additional gene selected from gene encoding polymer depolymerase, polymer deregulase or polymer size controlling protein wherein group 22 comprise genes of encoding PhaF and polymer synthase and one additional gene encoding polymer depolymerase and so on (see groups 7-9).

Group 25, claims 59-60,72-95, drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof.

Group 26, claims 59-60,72-95, drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof and polymer particle forming protein comprising thiolase or fusion protein thereof.

Group 27, claims 59-60, 72-95, drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof and polymer particle forming protein comprising ketoacyl reductase or fusion protein thereof.

Group 28, claims 59-60,72-95 drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof and polymer particle forming protein comprising polymer depolymerase or fusion protein thereof.

Groups 29, claims 59-60,62, 63, 66, 68, 69, 72-95, drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof and polymer particle forming protein comprising polymer regulase or fusion protein thereof.

Group 30, claims 59-60,63, 64, 66, 69, 70, 72-95, drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof and polymer particle forming protein comprising polymer synthase or fusion protein thereof.

Group 31, claims 59-60, 61, 63, 65, 66, 67, 69,, 71,, 72-95,drawn to a method of producing biodegradable polymer having surface-bound proteins using microorganism transformed with genes encoding comprising polymer synthase gene or fusion thereof and polymer particle forming protein comprising polymer size controlling protein or fusion protein thereof.

Group 32, claim 96, drawn to pharmaceutical preparation comprising biodegradable polymer particles made by the method of claim 59.

Group 33, claims 97-98, drawn to the method binding second biologically active substance to the polymer particles having surface-bound protein that made by the process of claim 59 wherein said second substance comprise oligopeptide.

Group 34, claims 97-98, drawn to the method binding second biologically active substance to the polymer particles having surface-bound protein that made by the process of claim 59 wherein said second substance comprise enzyme.

Group 35, claims 97-98, drawn to the method binding second biologically active substance to the polymer particles having surface-bound protein that made by the process of claim 59 wherein said second substance comprise abzyme.

Group 36, claims 97-98, drawn to the method binding second biologically active substance to the polymer particles having surface-bound protein that made by the process of claim 59 wherein said second substance comprise noncatalytic protein.

Group 37, claims 97-98, drawn to the method binding second biologically active substance to the polymer particles having surface-bound protein that made by the process of claim 59 wherein said second substance comprise antibody.

3. The inventions listed as Groups 1-3 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups 1-24 do not share same technical feature because each group of groups 1-24 comprise process using microorganism expressed with distinct polymer forming genes (thiolase, reductase or polymer synthase), polymer binding domain (depolymerase; polymer regulase, etc) in combination with phaA and PhaF gene having their special technical features.

Groups 1-24 and groups 25-31 do not share same technical feature because each group of groups 1- 24 comprise process making polymer particles whereas groups 25-31 process are of making polymer particle bound protein.

Furthermore, the only technical feature linking group 1-37 appears to be that they all relate to biodegradable polymer. The biodegradable polymer does not constitute a "special technical feature" as defined by PCT Rule 13.2, because it does not claim a feature which defines a contribution over the prior art as a biodegradable polymer is taught by the prior art such as Madison et al. (Microbiol and Mol boil. 1999, pp 21-53).

4. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Meah whose telephone number is 571-272-1261. The examiner can normally be reached on 8:30-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohammad Younus Meah, PhD
Examiner, Art Unit 1652
Recombinant Enzymes, 3C31 Remsen Bld
400 Dulany Street, Alexandria, VA 22314
Telephone: 517-272-1261

/Rebecca Prouty/
Primary Examiner
Art Unit 1652